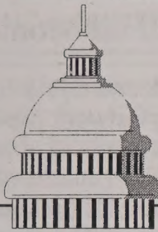
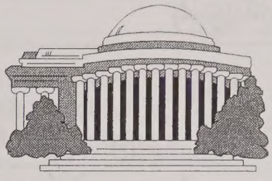


The Capitol Hill Monitor



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May 2007

ARLINGTON COUNTY TO SWITCH TO P25 TRUNKING THIS SUMMER

Arlington County intends to become the region's first local government to switch to a true APCO Project 25 (9600 baud) trunked system this summer.

The county's first responders will begin using the new system when the Emergency Communications Center moves to its new location. That's now expected to happen sometime this summer.

APCO Project 25 is a standard for digital public safety radio systems established by the Association of Public-Safety Communications Officials. For more information, see: http://www.apcointl.com/frequency/project25/information.html

The county will join a slew of area Department of Defense agencies which already communicate using similar APCO Project 25 trunked networks. But unlike the 380 MHz DoD networks, Arlington County will remain in the 800 MHz band.

Arlington County's new system's control channel, which has been assigned an ID of 01CA, is set to operate on these four channels: 860.4375, 859.9375, 859.7625 and 859.4375.

The existing 3600-baud Motorola analog trunked system (ID 0820), which has served the county's public safety users since 1993, will continue to run parallel to the new system for several years. This will support patching with other jurisdictions using older radios.

Here are the new primary talkgroups! Three analog conventional channels will continue to be used in the Metrorail tunnels, and for talkaround (TA) communication, and by vehicular repeater systems (VRS). A VRS relays signals between handheld radios and the trunked system via a mobile repeater.

The fire department has an alternate zone (A1) with specific talkgroups for logistics, special events, National Medical Response Team, fire prevention, and explosive ordinance disposal.

Fire/EMS Zone "1" (primary)

Decimal ID	HEX	Ch. Name
27	01B	1A DISP
28	01C	1B RESP
29	01D	1C INC1
30	01E	1D TAC1B
31	01F	1E TAC1C
32	020	1F CMD1
33	021	1G INC2
34	022	1H TAC2B
35	023	1I TAC2C
36	024	1J CMD2
37	025	1K INC3
38	026	1L TAC3B
39	027	1M CMD3
856.4875	r 156.7	1N FMETRO
867.2375	r/s 203.5	1O TA/VRS
82	052	1P INVSTG

Fire/EMS Zone "A1" (alternate)

Decimal ID	HEX	Ch. Name
27	01B	A1A DISP
28	01C	A1B RESP
40	028	A1C LOG-W
41	029	A1D LOG-OPS
42	02A	A1E LOG-CMD
43	02B	A1F SPEVT
44	02C	A1G SPE-CMD
45	02D	A1H NMRT-A
46	02E	A1I NMRT-B
47	02F	A1J NMRT-CMD
48	030	A1K FPREV
49	031	A1L SYS-TEST
50	032	A1M EOD-TAC
51	033	A1N EOD-CMD
867.2375	r/s 203.5	A1O T/A-VRS
27	01B	A1A DISP

Hospitals and Health

Decimal ID	HEX	Ch. Name
53	035	H ARL HOSP
54	036	H NVCH
55	037	H MEDSTR AR
183	0B7	FT MYER
186	0BA	AR PUBHLTH1
192	0C0	AR PUBHLTH2

Police

Decimal ID	HEX	Ch. Name
1	001	1A DISP1
2	002	1B TAC1
3	003	1C DISP2
4	004	1D TAC2
5	005	1E ADMIN
6	006	1F PRKNG
7	007	1G DIST1
8	008	1H DIST2
9	009	1I DIST3
10	00A	1J DIST4
11	00B	1K SOS
12	00C	1L TAC
13	00D	1M CID
14	00E	1N ERU1
858.4875	r 156.7	1O PMETRO

Coordination and Emergency Management

Decimal ID	HEX	Ch. Name
135	087	AR COORD1
136	088	AR COORD2
137	089	AR COORD3
138	08A	AR COORD4
139	08B	AR COORD5
140	08C	AR COORD6
141	08D	AR COORD7
142	08E	AR COORD8
117	075	AR OEM1
118	076	AR OEM2
119	077	AR OEM3
120	078	AR OEM4
121	079	AR OEM5
122	07A	AR OEM6
123	07B	AR OEM7
124	07C	AR OEM8

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A CLOSER LOOK AT THE U.S. NAVY'S EDACS TRUNKED NETWORK IN THE WASHINGTON AREA

They have intrigued, fascinated and frustrated area scanner listeners since the first EDACS system was installed for the Navy in Washington in May 1998.

The Naval District Washington (NDW) originally implemented a three-site EDACS system which operated from Bolling AFB, Bethesda Naval and WRC-TV's tower on Nebraska Ave.

The Enhanced Digital-Access Communications System, commonly known as EDACS, is a trunking network protocol now owned by Tyco Electronic's M/A-Com.

The NDW EDACS network eventually expanded to five sites. A sixth site, proposed for Annapolis, will likely never be built. Three of the channels intended for Annapolis appear to have been reassigned for use at the Navy's facility in Suitland (see page 3, column 2).

The NDW EDACS network allows selected talkgroups to simulcast across multiple sites. It was ideal since NDW centralized police and fire dispatch functions for many of its facilities. Several NDW elements have not joined the centralized dispatch center, located at the Navy Yard, and continue to operate independently.

When programming a scanner in EDACS mode, each site must be entered separately, and the receive channels must be entered by logical channel number as indicated. The first column is the receive frequency. The transmit frequency appears in the center column for reference only and is not required for scanner listening.

The system uses a mix of analog and an old proprietary digital format known as Aegis, which scanners cannot decode. Some talkgroups, such as those used by the police, are digital. But on rare occasions, one may hear some analog transmissions on these channels. The radios receive analog and digital signals while on Aegis talkgroups.

The Bolling AFB site was the first to became operational in May 1998. The primary users were the NDW public safety department and the USMC Barracks.

Bollling AFB NDW (Site #1)

138.7750	148.3000	LCN1
140.1250	149.0500	LCN2
140.6250	149.3500	LCN3
138.6500	142.5500	LCN4
138.9375	143.9375	LCN5

In August 1999, the Bethesda site became active. Despite using the same radio network, Bethesda still retains its own police and fire dispatch facility.

National Naval Medical Center (Site #2)

138.1250	140.2250	LCN1
142.1000	140.2750	LCN2
142.6000	140.3000	LCN3
143.7000	140.7250	LCN4
150.6125	140.6125	LCN5

The Nebraska Avenue WRC-TV site became active in November 1999 and extended coverage to Navy facilities in Northwest Washington, such as the U.S. Naval Observatory (NOB), Navy Bureau of Medicine and Surgery and the Nebraska Avenue Complex (NAC) which is now the Department of Homeland Security HQ.

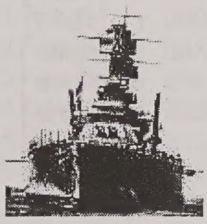
WRC-TV Tower (Site #3)

138.5125	143.5125	LCN1
138.3875	143.3875	LCN2
138.2625	143.2625	LCN3
138.1375	143.1375	LCN4
138.0125	143.0125	LCN5

Although a short distance from the Bolling AFB site, the Navy Yard site was added to enhance coverage along the waterfront.

Washington Navy Yard (Site #4)

138.0625	143.0625	LCN1
138.2125	143.2125	LCN2
138.3625	143.3625	LCN3
138.4625	143.4625	LCN4
138.5875	143.5875	LCN5



NDW also has a SCAT site programmed in its radios. SCAT allows a single channel to behave as its own trunk site. That single channel performs both control and voice functions normally requiring two or more channels.

A SCAT site could permit trunked operation in difficult areas such as ravines, tunnels or extremely low traffic density areas and could perhaps serve as an ad hoc remote site using a single repeater.

SCAT-Single Channel Autonomous Trunking (Site #5)

139.7750	149.9750	LCN1

The site at the Washington Air Facility became operational in 2001. It remains operational, but appears not to be active. These users have likely migrated to the newer Department of Defense 380 MHz network.

Andrews Naval Air Facility (Site #6)

138.1875	143.1875	LCN1
138.4875	143.3375	LCN2
138.7375	143.0375	LCN3

The Annapolis site was planned but never built. See page 4, column 2 for the Annapolis conventional channels which are still used.

Annapolis (Site #7) [NOT BUILT]

138.0875	143.0875	LCN1
138.2375	143.2375	LCN2
138.4875	143.4875	LCN3
138.6125	143.6125	LCN4
138.7125	143.7125	LCN5

The EDACS system used by the Suitland Naval facility does not appear to be networked with the other NDW sites, but it was built using three of the channels intended for Annapolis.

Suitland (Site #1)

138.2375	143.2375	LCN1
138.6125	143.6125	LCN2
138.7125	143.7125	LCN3

This conventional channel is for back-up use:

Conventional "Sitedown"

140.2250	140.2250	156.7

Talkgroups

The NDW police talkgroups are typically Aegis digital. Other users, such as the fire and public works, are analog. The talkgroups are assigned in blocks based on hexadecimal ID (center column). The first column is the decimal equivalent.

273	111	Command
274	112	NDW Net
275	113	Unknown
277	115	Unknown
278	116	Unknown
280	118	Unknown
284	11C	Unknown
285	11D	Quartermaster
286	11E	Unknown

Suitland's talkgroups are the same IDs as above, but are on a totally separate network and entirely digital.

289	121	S/E Federal Center
292	124	Unknown

305	131	Unknown
306	132	Unknown
307	133	US Marine Corps Bks
308	134	US Marine Corps Bks
309	135	Unknown
310	136	Unknown
311	137	Unknown

321	141	NNMC
323	143	NNMC DPW
324	144	NNMC
325	145	NNMC
326	146	NNMC
329	149	NNMC

337	151	Unknown
343	157	Transportation Motor Pool, sedans
344	158	Transportation Motor Pool, buses
345	159	Unknown
346	15A	Unknown

353	161	Single Channel Autonomous Trunking 1
354	162	Single Channel Autonomous Trunking 2
369	171	Unknown
370	172	Unknown
373	175	Unknown
375	177	Unknown
381	17D	Unknown
385	181	VMFA321A (ADW)
386	182	Unknown
387	183	VMFA321B (ADW)
388	184	Unknown
389	185	Unknown
390	186	VMFA321E (ADW)
391	187	MAG-391 (ADW)
392	188	Unknown
393	189	Unknown
394	18A	Unknown
395	18B	Unknown
396	18C	Unknown
529	211	PD Dispatch (system wide)
530	212	PD Wash Navy Yard Tac
531	213	PD Naval Observatory Tac
532	214	PD Nebraska Ave Complex Tac
533	215	PD Nat'l Navy Med Ctr Tac
534	216	PD NDW Tac 1
535	217	PD NDW Tac 2
536	218	PD Training
537	219	PD Unknown
545	221	Unknown
548	224	Unknown
561	231	NNMC PD Dispatch
562	232	NNMC
563	233	NNMC
566	236	NNMC Unknown
865	361	Ch. 1: FireComm (NDW Dispatch)
866	362	Ch. 2: Fire Ground 1
867	363	Ch. 3: Fire Ground 2
868	364	Ch. 4: Fire Inspectors
869	365	Ch. 5: Fire Mutual Aid (FMARS)
870	366	Ch. 6: DC Fire Main (patch)
871	367	Unknown
881	371	NNMC FD (main)
882	372	NNMC FD Unknown
883	373	NNMC FD Unknown
884	374	NNMC FD Unknown
885	375	NNMC FD Unknown

###

U.S. NAVAL ACADEMY POLICE AND FIRE CHANNELS

The U.S. Naval Academy in Annapolis still uses conventional analog channels for its police and fire communication. They have been testing the 380 MHz Defense Department network as well. Here are the current channel plans for the Annapolis VHF hand-held radios.

Naval Academy Fire

148.425	r	[None]	Ch.1 FD Main (in 140.450, 114.8)
148.950	s	[156.7]	Ch.2 Fire/Police Secondary
148.000	s	[79.7]	Ch.3 Fire Secondary
148.350	s	[None]	Ch.4 Public Works
149.000	s	[156.7]	Ch.5 Police Talkaround
149.000	r	[156.7]	Ch.6 Police Main (in 139.475)
149.350	s	[None]	Ch.7 Free Ch.
149.400	s	[None]	Ch.8 Marine Gates
138.625	s	[None]	Ch.9 Disaster
140.275	s	[None]	Ch.10 Hospital
149.375	s	[186.2]	Ch.11 Alumni Hall
149.375	s	[206.5]	Ch.12 Mahan Hall
149.375	s	[None]	Ch.13
154.010	s	[114.8]	Ch.14 Anne Arundel Co. FD
149.050	s	[d114]	Ch.15 Fire North of the Severn
148.425	s	[None]	Ch.16 Fire Talkaround

Naval Academy Police

149.000	r	[156.7]	Ch.1 Police Main (139.475 in)
149.000	s	[156.7]	Ch.2 Police Talkaround
148.425	s	[None]	Ch.3 Fire Main
148.950	s	[None]	Ch.4 Fire/Police Secondary
149.350	s	[None]	Ch.5 Fire Ch.
149.400	s	[None]	Ch.6 Marine Gates
176.025	s	[85.4]	Ch.7 "blank"
163.050	s	[d023]	Ch.8 Boat Dock

###

NEW CHANNEL PLANS FOR KENT COUNTY (MARYLAND) SHERIFF AND FIRE/EMS

Public safety agencies in Kent County started the year with revised channel plans. Kent is the only county on the Maryland Eastern Shore without a trunked system.

Kent County Police Portable

Channels 8 through 13 are in portable radios only. The mobile is programmed with 10 channels (portable channels 1 to 7, and 14 to 16 which are moved to 8 to 10).

RECEIVE	TRANSMIT	Ch./Use
159.2100 [103.5]	155.9100 [156.7]	1 Police Main
155.7000 [151.4]	158.9100 [151.4]	2 Tac 1
155.4750 [None]	155.4750 [None]	3 Nat'l Law
159.2100 [103.5]	155.9100 [192.8]	4 Sys Wide PD F1
159.2100 [103.5]	155.9100 [103.5]	5 Central PD F1
159.2100 [103.5]	155.9100 [118.8]	6 Galena PD F1
159.2100 [103.5]	155.9100 [136.5]	7 Rock Hall PD F1
159.2100 [103.5]	155.9100 [156.7]	8 Police Main *
159.2100 [103.5]	155.9100 [156.7]	9 Police Main *
159.2100 [103.5]	155.9100 [156.7]	10 Police Main *
154.1975 [203.5]	150.7825 [203.5]	11 Fire 1 *
155.1675 [141.3]	158.8725 [141.3]	12 Fire 2 *
154.2425 [136.5]	155.9925 [136.5]	13 Fire 3 *
156.2100 [173.8]	155.6550 [173.8]	14 Detention Center
158.8200 [d243]	156.0150 [d243]	15 County Gov
159.2100 [103.5]	155.9100 [156.7]	16 Police Main

Kent County Fire/EMS Radio

Channels 16-19 are programmed in mobile radios only. The portable has the same channel plan through channel 15. Channel 16 in the portable is the same as channel 1.

RECEIVE	TRANSMIT	Ch./Use
154.1975 [203.5]	150.7825 [203.5]	1 Fire 1
155.1675 [141.3]	158.8725 [141.3]	2 Fire 2
154.2425 [136.5]	155.9925 [136.5]	3 Fire 3
153.7700 [d152]	153.7700 [d152]	4 Fire Ground 1
153.8900 [d152]	153.8900 [d152]	5 Fire Ground 2
154.0100 [d152]	154.0100 [d152]	6 Fire Ground 3
154.0700 [d152]	154.0700 [d152]	7 Fire Police
154.1975 [203.5]	150.7825 [131.8]	8 Fire 1A
155.1675 [141.3]	158.8725 [94.8]	9 Fire 2A
154.2425 [136.5]	155.9925 [85.4]	10 Fire 3A
151.1375 [156.7]	151.1375 [156.7]	11 V Tac 1 (Cecil)
159.2100 [103.5]	155.9100 [156.7]	12 Police Main
154.2800 [None]	154.2800 [None]	13 Fire Mut Aid 1
154.2650 [None]	154.2650 [None]	14 Fire Mut Aid 2
158.8200 [d243]	156.0150 [d243]	15 County Gov
151.0850 [None]	———— ———	16 Q. Anne FD *
155.5275 [None]	———— ———	17 Cecil FD *
156.4500 [None]	156.4500 [None]	18 Marine 9 *
156.8000 [None]	156.8000 [None]	19 Marine 16 *

###

AIR SHOW SEASON!

***by Mike Agner* KA3JJZ**

It's air show time and the annual *Monitoring Times* air show guide by Larry Van Horn is posted on the Internet at:

http://www.monitoringtimes.com/mtairshow07.pdf

If you do not have computer access, please send Alan a reply envelope for a copy, or provide a fax number.

The U.S. Air Force Thunderbirds are scheduled to fly at Andrews Air Force Base Joint Services Open House on May 17-20.

The U. S. Navy's Blue Angels are still listed as performing during the May 23 graduation at the U.S. Naval Academy. That event appears on the team's Website, which notes that the schedule is subject to change once the team resumes practice.

http://www.jsoh.org
http://www.usafthunderbirds.com/
http://www.blueangels.navy.mil/

Some other links one may find useful for Prince George's County and Andrews AFB freqs:

http://www.davidschoenberger.net/scanning/maryland/
http://henney.com/chm/files/ARCbackup/

This Webpage has Andrews AFB files for the BCD396T at the bottom, including info for many new 380 MHz Department of Defense systems:

http://home.earthlink.net/~freqhopping/scanner.html

Also check for files on your scanner's Yahoo group file areas. A list is posted on the Wiki pages, follow this link:

http://henney.com/chm/links/scanners.htm

For example, the BCD396T Yahoo group has ARC396 files for the Prince George's County area (hopefully there's something there for Andrews…).

73's Mike

###

The Capitol Hill Monitor
c/o Alan Henney
6912 Prince George's Avenue
Takoma Park, MD 20912-5414

Inside this issue:

- Arlington goes true P25.
- NDW's VHF EDACS network.
- Naval Academy VHF channels.
- New line-ups for Kent Co, Md.
- Links for air show season.

[redacted]

CAPITOL HILL MONITORS

Please address all correspondence to Alan. We encourage readers to submit material and write articles that relate to the hobby. All submissions are subject to editing for style and content. When submitting material please make certain we can contact you should we have any questions. We welcome frequency and visitor requests, but please include a reply envelope.

Contact: Alan Henney (alan@henney.com)
6912 Prince George's Avenue
Takoma Park, MD 20912-5414
301-270-2531 (voice) / 301-270-5774 (fax)

CHM Staff:
Dr. Willard Hardman, Executive Editor
Mike Peyton, Technical Advisor
Mike Agner, Links Editor
Ken Fowler, Northern Virginia Correspondent
Alan Henney, Editor & Treasurer

The *Capitol Hill Monitor* is the non-profit newsletter of the Capitol Hill Monitors. The newsletter keeps scanner enthusiasts abreast of local meetings, frequency profiles and other topics of interest. Dues are $10 and include 12 issues (back issues cost $1 each). Kindly make checks payable to Alan Henney. Membership will be prorated accordingly in the event of a postage increase.

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The *Capitol Hill Monitor* newsletter is converting to electronic distribution. "Snail mail" distribution will continue for the time being at the current cost of $10 for 12 issues (**please do not send more than $10**!). Since the newsletter is provided at cost, the online version is available for free. To receive the online version, please send an e-mail to alan@henney.com. When the next issue is available, you will receive an e-mail with a link and list of topics for that issue. We welcome your input, suggestions and article submissions.

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